



Prevalence of Meeting Recommendations for Small Screen Recreation in Australian Secondary Students

Background:

The National Secondary Students' Diet and Activity (NaSSDA) survey 2009-10 is jointly funded by the state Cancer Councils, Cancer Council Australia and the National Heart Foundation of Australia. The study fills a significant gap in existing data in Australia by establishing an ongoing commitment to the standardised monitoring of adolescents' body weight, and dietary and physical activity behaviour at both a state and national level.

Methods:

A nationally representative sample of 12,188 secondary school students from year levels 8 to 11, from 237 schools was surveyed. Data on students' dietary, physical activity and sedentary behaviour were collected via a web-based questionnaire, and anthropometric measurements of students' height, weight and waist circumference were taken by trained researchers in a confidential setting. Active parental consent was required for students to participate in each component of the study. An audit of the school food and activity environment was also conducted.

This research memo reports on the prevalence of televisions in the home and time spent by Australian secondary school students in small screen recreation (i.e., watching TV, videos and DVD's, playing video games, and using the computer for leisure). A subscale of the *Adolescent Sedentary Activity Questionnaire* (ASAQ) was used to assess small screen recreation on school days and the weekend.¹ This subscale has been shown to have good reliability¹ and allows direct comparison with *Australia's Physical Activity Recommendations for 12-18 year olds* that suggest adolescents spend no more than two hours per day using electronic media for entertainment.²

Data were weighted by state, year level, sex and education sector to the population of students enrolled in Australia and the reported prevalence estimates are based on these weighted data.³ Analyses adjusted for school level clustering using Stata SE 11.1. Logistic regression analyses were used to test for significant differences ($p < 0.01$) in the proportion of students meeting recommendations by sex, body mass index (BMI) category, socio-economic status (SES) and home location.

Prevalence of televisions in the home:

Just under half (47%) of all students reported having three to four televisions in their home while a further 17% had five or more televisions. Only 1% of students indicated that they did not have a television in their home. Forty-seven percent of students indicated that they have a television in their bedroom; and this was more common among males than females (53% cf. 41%). Students from low SES areas were more likely to report having a television in their bedroom compared to students from high SES locations (52% cf. 34%).

Small screen recreation:

Overall, 71% of all students reported spending more than two hours using electronic media for entertainment on an average school day, while 83% of all students reported exceeding daily recommendations for electronic media use on the weekend. As illustrated in Table 1, males were more likely than females to be exceeding recommendations for small screen recreation on both school days (74% cf. 67%) and on the weekend (85% cf. 81%).

There were no significant differences between overweight/obese students and healthy weight students. However, students from low SES areas were more likely to be exceeding the recommendations on school days compared to those from high SES locations (72% cf. 69%). Students who resided in metropolitan areas were more likely than those from rural areas to be exceeding recommendations for electronic media use on both school days (74% cf. 67%) and on the weekend (84% cf. 81%).

Table 1: Proportion of students exceeding daily recommendations for electronic media use on school days and on the weekend by sex, BMI category, SES and home location

	School Day			Weekend		
	Males	Females	All	Males	Females	All
Total	74.4%	67.5%*	71.1%	84.8%	80.6%*	82.8%
BMI Category						
Healthy weight	73.7%	67.2%	70.6%	84.6%	79.8%	82.3%
Overweight / obese	76.4%	68.4%	72.8%	85.2%	83.3%	84.3%
SES						
Low	75.7%	67.4%	71.6%	83.9%	80.8%	82.3%
Medium	74.5%	69.2%	72.0%	85.1%	82.2%	83.7%
High	72.2%	64.7%	68.9%*	85.5%	77.5%	82.0%
Home Location						
Metropolitan	76.9%	70.5%	73.9%	86.5%	82.1%	84.4%
Rural	70.8%	63.2%	67.2%*	82.3%	78.6%	80.6%*

* Significant difference at p<0.01

Note: Reference groups for significance testing were males, healthy weight, low SES, and metropolitan.

Summary:

Opportunities for television exposure are high among Australian adolescents, as highlighted by the majority of students having at least three televisions in their home and almost half having a television in their bedroom. Students' ready access to watching television is concerning, with the presence of a television in the bedroom associated with increased risk of overweight, particularly among male adolescents.^{4, 5}

Few students are limiting their time spent in small screen recreation, with males and metropolitan-based students most likely to be exceeding recommendations. As expected, use of electronic media for entertainment is higher on weekends where there are less competing time demands such as school and homework. Watching more than two hours of television has been associated with risk factors for obesity in children including poor eating and exercise habits.⁶ As such, adolescents should be encouraged to spend their leisure time in more active pursuits.

References:

1. Hardy LL, Booth ML & Okely AD. (2007). The reliability of the Adolescent Sedentary Activity Questionnaire (ASAQ). *Preventive Medicine, 45*: 71-74.
2. Department of Health and Ageing. (2004). *Australia's Physical Activity Recommendations for 12-18 year olds*. Canberra: Commonwealth Department of Health and Ageing.
3. Australian Bureau of Statistics. (2010). *Schools Australia, 2009*. Catalogue No. 4221.0. Canberra: Australian Bureau of Statistics.
4. Delmas C, Platat C, Schweitzer B, et al. (2007). Association between television in bedroom and adiposity throughout adolescence. *Obesity, 15*: 2495-2503.
5. van Zutphen M, Bell AC, Kremer P, et al. (2007). Association between the family environment and television viewing in Australian children. *Journal of Pediatrics and Child Health, 43*: 458-463.
6. Salmon J, Campbell KJ & Crawford D. (2006). Television viewing habits associated with obesity risk factors: a survey of Melbourne schoolchildren. *Medical Journal of Australia, 184*: 64-67.